



SUBMISSION 53: Roll Forward of the Capital Base



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1. INTRODUCTION

- 1.1 On 14 March 2011, the Economic Regulation Authority (**ERA**) made its draft decision (**Draft Decision**) in relation to the full access arrangement proposal filed by DBNGP (WA) Transmission Pty Ltd (**DBP**) on 1 April 2010 (**Original AA Proposal**).
- 1.2 The Draft Decision indicates that the ERA:
 - (a) is not prepared to approve the Original AA Proposal; and
 - (b) requires 109 amendments to the Original AA Proposal in order to make the access arrangement proposal acceptable to the ERA.
- 1.3 The Draft Decision also fixes a period for amendment of the Original AA Proposal (**revision period**), which revision period expires on 18 April 2011.
- 1.4 On 18 April 2011, DBP submitted the following documents pursuant to Rule 60 of the NGR, which make up the amended access arrangement proposal (**Amended AA Proposal**):
 - (a) Amended Proposed Revised Access Arrangement; and
 - (b) Amended Proposed Revised Access Arrangement Information.
- 1.5 Rule 59(5)(c)(iii) of the NGR requires the ERA to allow at least 20 business days from the end of the revision period for submissions to be made (in relation to both the Draft Decision and the Amended AA Proposal). The ERA has advised that interested parties are able to make submissions on the ERA's Draft Decision up until 4:00pm (WST) Friday 20 May 2011.
- 1.6 While DBP has submitted to the ERA that the Amended AA Proposal contains the information that the NGA (which includes the WA National Gas Access Law text (**NGL**) and the National Gas Rules (**NGR**) requires to be included in order to enable it to be approved by the Economic Regulation Authority (**ERA**), on 18 April 2011, DBP also submitted that DBP will also be filing the following supporting submissions that explain and substantiate the amendments and additions in the Amended AA Proposal that have been made to address various matters raised in the Draft Decision:
 - (a) Submission (47) Revised Amended Access Arrangement Proposal (this was filed on 18 April 2011)
 - (b) Submission (48) Overarching
 - (c) Submission (49) Response to Specific Amendments
 - (d) Submission (50) Reference Service
 - (e) Submission (51) Terms & Conditions
 - (f) Submission (52) Opening Capital Base
 - (g) Submission (53) Roll Forward of the Capital Base (being this Submission)
 - (h) Submission (54) Operating Expenditure
 - (i) Submission (55) Rate of Return

- (j) Submission (56) Other Tariff Matters
 - (k) Submission (57) Non Tariff Matters
- 1.7 In this Submission, DBP responds to the following matters raised in the draft decision:
- (a) Particular items of forecast capital expenditure that were criticised by the ERA
 - (b) Updated capital expenditure figures for 2010 and 2011
 - (c) Capital contributions
- 1.8 As a final introductory matter, DBP also has issues with the manner in which the ERA has both exercised its discretion in relation to its assessment of the elements of the Access Arrangement relating to the roll forward of the capital base and undertaken its task under the NGL and NGR of assessing the relevant provisions of the Original AA Proposal's compliance and consistency with the requirements of the NGL and NGR. This matter is addressed in more detail in submission 48 filed on or about the date of this submission. Throughout this submission, DBP draws the ERA's attention to this point where relevant.

2. RESEPNSE TO CRITICISM MADE BY ERA IN REALTION TO PARTICULAR ITEMS OF FORCAST CAPEX 2011-15

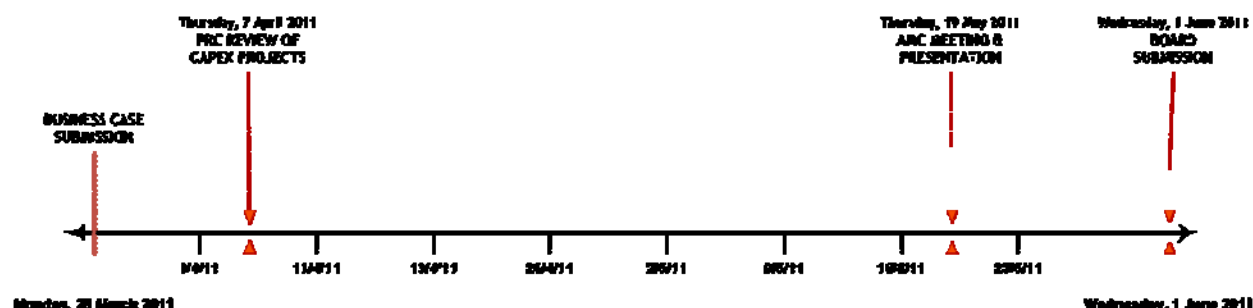
- 2.1 In the Draft Decision, the ERA refers to a number of issues raised by its consultants tasked with reviewing forecast capital expenditure for the 2011 to 2015 regulatory period (Halcrow).
- 2.2 DBP addresses each issue in turn in the paragraphs below.

Method used to derive forecast capex

- 2.3 In paragraph 283 of its draft decision the ERA suggests that DBP has not provided information to the Authority indicating the methods used to derive the forecast of stay-in –business (SIB) capital expenditure (SIB Capex).
- 2.4 This is incorrect.
- 2.5 DBP's forecast SIB Capex is derived as part of DBP's Business Planning Process whereby each of the divisions in DBP management prepares its 5 year rolling plan based on:
- (a) the need to comply with legal and contractual requirements;
 - (b) the Asset Management Plan and the Equipment Obsolescence Matrix;
 - (c) key risks (operational and enterprise wide) which need to be mitigated; and
 - (d) identified business improvement processes.
- 2.6 The plan lists particular activities that need to be undertaken to meet the above objectives. From this list of activities, management identifies which ones will require capital expenditure to be incurred. Each activity requiring capital expenditure to be incurred will become a proposed project. Each proposed project is required to be defined, scoped, a cost estimated and delivery strategy mapped out clearly for review by the Executive Management Team and the Project Review Committee.
- 2.7 All of the proposed projects will need to be prioritized amongst each other. The process used in the derivation of the prioritised list of SIB projects include:
- (a) The degree of cost certainty of the project with Category 3 or better is earmarked for Year 1 and Categories below are processed for future years;
 - (b) FEED studies are required in Year 1 of the planning phase particularly for large projects to ensure scope is accurate and cost estimation processes of Monte Carlo adopted;
 - (c) Benefits both for the system as well as NPV; and
 - (d) Risk Ranking process using DBP's risk matrix.
- 2.8 DBP maintains a rolling 5 year SIB capital list of programs in line with the business strategies and plans with Years 1 and 2 demanding high level of cost accuracies as they relate to projects that are going to be delivered in the current business year. For each year, each management division is required to submit its business case submission for each project before the end of March of each year for PRC review by first week of April to enable Year 1 and 5 year plans to be approved by the Board by 1

June in readiness for the implementation of approved programs by 1 July of each year. Following is an example of the timeline being followed for the 2011/12 business plan.

Figure 1: Example timeline for SIB project review



- 2.9 The ERA's consultants Halcrow Pacific in Section 4.4.3 of its report capture the DBP process.
- 2.10 Halcrow detail that forecast of SIB is a function of the following steps and fine tuned on an annual basis as the detail annual business plan is finalised:
- Long Term Equipment Obsolescence Matrix (LTEOM) is the main source giving rise to the equipment due for review
 - This list would determine the extent of FEED work to be carried out during each year to provide more accurate costing to Cat 3 sufficient for inclusion in the annual program. Category 3 level of cost certainty employs cost estimation methods including Monte Carlo cost risks for projects with multiple inputs and cost variables
 - Whilst the LTEOM is the main source of SIB works, this process also takes into account new SIB improvement projects that are developed and assessed on merit
- 2.11 DBP adopts continuous improvement processes and constantly review these processes and tools used in the forecasting of capital expenditure.

Explanation for the peak in SIB Capex in 2010

- 2.12 Paragraphs 286 to 288 of the Draft Decision refer to a large peak in stay-business capital expenditure in 2010 and a subsequent decline in expenditure over the course of the 2011 to 2015 access arrangement period.
- 2.13 DBP submits that this was because of three key reasons:
- A number of SIB projects being aligned with the work required to enable the completion of Stage 5B expansion project – it will lead to a more efficient outcome if the SIB projects were carried out at the same time as stage 5B close out projects were being carried out in similar locations;
 - The CY 2010 actual expenditure included in the Original AA Proposal was, at the time it was filed, a forecast derived at the end of 2009. Now DBP knows its actual expenditure incurred; and

- (c) Having included projects as CY 2010 Actual expenditure (or part of that years forecast) that were in fact Capital Works in Projects (CWIP).
- 2.14 This issue of the spike in expenditure for 2010 has been addressed with the Amended AA Proposal filed on 18 April 2011. It has been addressed by way of the following:
- (a) DBP has updated its CY 2010 figures to reflect actual expenditure (as opposed to what DBP forecast, at the time of the filing of the Original AA Proposal, to be its actual capex for 2010). These figures have been reconciled to DBP's statutory financial statements and have been verified by its auditors
 - (b) DBP has recorded as expenditure to include into the capital base in 2011 that expenditure which is recorded in the 2010 audited financial accounts as "Assets under Construction" or "Construction Work in Progress"; and
 - (c) provided more detail on projects that appeared on the CWIP report as at 31 December 2010.
- 2.15 Further information on projects that appeared on the CWIP report at 31 December 2010 is provided in Section 4 of this submission.

LM500 Compressor Units Decommissioning FEED Study

- 2.16 Paragraph 289 of the Draft Decision outlines a number of projects with respect to which, the ERA has endorsed concerns raised in the Halcrow report either as to the quantum or timing of certain items of forecast SIB Capex and as a result, has either disallowed certain items of SIB Capex or has changed the timing of certain amounts of forecast SIB Capex.
- 2.17 DBP provides this further justification in response to each item of forecast SIB Capex where such a concern has been raised.
- 2.18 The first relates to the timing of a FEED Study for the decommissioning of the LM500 Compressor Units. In the Draft Decision, the ERA proposed to defer this item of SIB Capex to 2014.
- 2.19 The LM500 are part of the asset base in the next 5 years of service. It is being considered whether they should be decommissioned and removed from service in the following period. The main purpose of the FEED this period is to engineer the LM500 from on line to mothballed state where it is mechanically isolated from gas process but continues to share common critical control equipment with other machines until it is removed and totally decommissioned from service.
- 2.20 The FEED scope is derived to provide a clear engineering process to move this equipment into mothball with the view to them totally decommission in the next period.
- 2.21 This is a prudent Management of Change process under DBP's safety case where an item of equipment is not intended to provide constant and regular gas transmission process (but is an integral part of system redundancy and therefore reliability) but where its station controls are shared with other on line equipment. The isolation and eventual removal of the LM500s need to be carefully considered. It requires a careful consideration of whether to move to a mothballed state versus operational state so that reliability of the station is not compromised.

- 2.22 Conducting the FEED study early in 2011 sets the direction to move the equipment into mothballed and in a safe mode to decommission later.

Replacement of PVC Oil Waste Piping

- 2.23 DBP has revised its forecast SIB Capex for replacement of PVC oil waste piping and considers the amount of [REDACTED] to be a reasonable estimate of forecast costs. DBP expects to incur the costs in CY 2011.

Replacement of CS6 [REDACTED] exhaust

- 2.24 The ERA proposed to remove the total forecast SIB Capex for this project - [REDACTED] in 2014 on the bases that firstly DBP had not justified the cost estimate and secondly, DBP had not provided sufficient information to justify the timing for the incursion of the expenditure (2014) given the assessment of the risk of failure.
- 2.25 The planned replacement of the CS6 Nuovo Pignone [REDACTED] exhaust was based on the actual cost of replacement of the CS9 [REDACTED] exhaust carried out in 2004 using DBP's procurement procedures, which included a competitive tendering process. That work was tendered and awarded to [REDACTED]. The scope included the manufacture offsite of the exhaust, its transport to site, removal of the existing and installation of new exhaust.
- 2.26 The CS6 [REDACTED] exhaust had suffered similar wear in service as CS9 [REDACTED] exhaust. Repairs of existing CS6 [REDACTED] exhaust has been undertaken to mitigate fractures that have formed and to reduce the risk to ALARP.
- 2.27 An assessment of remaining useful life based on inspections conducted has determined its replacement is required in 2014.
- 2.28 Accordingly, DBP submits that the amount of capital expenditure for this project and its timing, as proposed by DBP, should be accepted. Accordingly, DBP's Amended AA Proposal has retained this item of expenditure in 2014.

Standardisation of PLC and HMI Logic

- 2.29 The ERA recommended, at paragraph 289 of the Draft Decision, that the expenditure for this project be excluded from the forecast SIB capital expenditure for the entire access arrangement period on the basis that DBP had not provided sufficient information to demonstrate that this standardization could not be better undertaken as part of an upgrade of compressor control equipment projected as a separate item of SIB Capex during the access arrangement period.
- 2.30 DBP notes that until the Draft Decision, DBP was not asked by either the ERA or Halcrow, to provide further information to justify the project and, given the opportunity, DBP could have provided an adequate explanation.
- 2.31 The scope of work of 'Standardisation of PLC and HMI Logic' and 'Replacement of PLCs at ACS Sites and CS10' are quite separate and unrelated to each other as they involve different vendors, different designs and serve different purposes in the control and management of rotating plants at Compressor Stations.

- 2.32 Compressor Station Controls are categorized into Station Control and Unit Control. The Station Control scope described separately as 'Replacement of PLCs at ACS Sites and CS10' relate to the replacement of Allen Bradley PLC5 station control that have reached design life. These PLCs located at CS1, 3, 5, 8 and 10. The contractor for this work is [REDACTED] supporting DBP [REDACTED] specialist engineers.
- 2.33 This work is separate from the software standardisation work associated with the Solar Compressor/Turbine units following the stages of expansions of Stage 3A, 4, 5A (including the Control Systems Upgrade of the ACS Solar Units) and , 5B. As every stage of expansion accesses equipment at different stages of development, the DBNGP at the end of the last 5 years of expansion now have multiple versions of software. This has introduced an element of complexity into the fleet of Solar Compressors and this project is to bring Solar back to the DBNGP and work with our specialist to introduce standardization on the DBNGP. This is important to optimise and reduce complexity and reduce the opportunities for human errors in the maintenance of these controls.
- 2.34 DBP therefore submits that it should be included as conforming forecast capital expenditure.

Replacement of underground pipework at compressor stations

- 2.35 At paragraph 289 of the Draft Decision, the ERA, based on advice from Halcrow, consider that the unit cost per compressor station for the cost of replacement of underground pipeline at compressor stations is too high particularly when compared to the quantum of costs incurred on similar activities in the period 2005 to 2010.
- 2.36 DBP submits that Halcrow's assumptions, and therefore those of the ERA's, used to reach this conclusion are incorrect.
- 2.37 The coating refurbishment work completed between 2005 and 2010 was based on the following actual costs:

Compressor Station	Length 300 mm dia	Length 508 mm dia	Length 600mm dia	Length 660 mm dia	Total Length meters	Length excavated meters	Actual Cost	Cost / meter
3	48	-	150.5	468.5	667	420	[REDACTED]	[REDACTED]
5	166	-	-	408.5	574.5	156		
8	119.5	-	-	481	600	159		
						Average cost/meter		\$3,514.93

- 2.38 The works to date have been completed at an average cost of \$3,514 per metre of below ground pipework work and takes into account the following:
- (a) Excavation is carried out in areas of high gas risk and no machine excavation within 1 meter of the station live pipework;
 - (b) Will require station isolation and vent down due to the hazardous nature of the work and the need to remove gas sources from machines used to compliment hand digging;

- (c) Some pipework are in confined spaces requiring special tools and equipment;
- (d) Full application of DBP's safety systems and processes considering the high risk nature of the works; and
- (e) Full inspection of the pipe surface for cathodic protection, corrosion and stress corrosion impacts;

2.39 The 5 year coating program is estimated from the following table.

Compressor Station	Total Length, m	Total Worst Case Cost	Year installed	Year planned for refurbishment
1	552		1991	2012
2	486		1984	2013
3	667		1984,1991	Completed
4	481		1984,2000	2015
5	575		1991	2011
6	572		1984,1997	2014
7	478		1984,2000	2016
8	601		1991	2011
9	372		1997	2017
Total	4784	15,239,597		

- 2.40 The column headed "Total length" includes all pipework that is of a diameter equal to or greater than 300mm.
- 2.41 The column headed "Total Worst Case Cost" is based on the actual average rate of \$3514 per metre to complete the excavation, inspection and repair of 100% of all below ground pipework.
- 2.42 As it is impossible to estimate the length of pipe that will require complete repair [note CS3 had 80% of pipework requiring repairs], this submission had allocated for budgeting purposes a total of [REDACTED] or 70% of the Total Worst Case Cost of [REDACTED] for the 5 year period.
- 2.43 The coating evaluation and refurbishment program is planned to match an allowance of [REDACTED] per annum equating to a 70% of total length of underground pipework to be completely refurbished by blasting of old coating to bare white metal finish and application of recommended coating before curing and back filling fit for another 10 years of service.

Replacement of water pipework at CS2

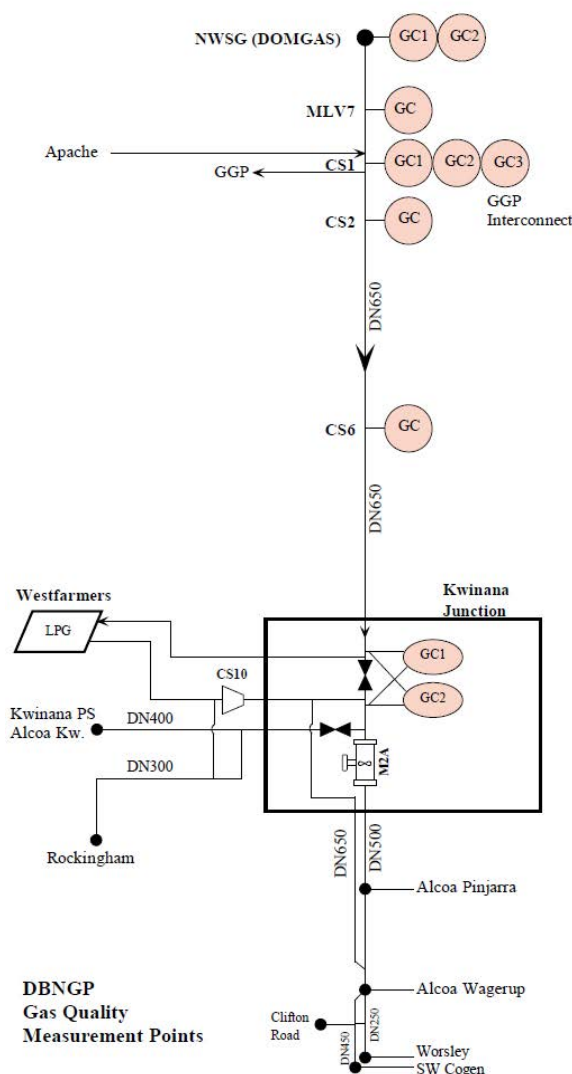
- 2.44 At paragraph 289 of the Draft Decision, the ERA, based on advice from Halcrow, considers that DBP has failed to provide sufficient information to justify the expenditure allowed for this project in 2011 [REDACTED] - \$2010) and so, the ERA proposed only 50% of the forecast capital expenditure.
- 2.45 DBP has revisited its forecast for replacement of replacement of CS2 water pipework and considers the amount of [REDACTED] to be a reasonable estimate of forecast costs. DBP expects to incur the expenditure in CY 2011.

Installation of gas chromatographs FEED

- 2.46 At paragraph 289 of the Draft Decision, the ERA, based on advice from Halcrow, concluded that the amount allowed for this item of expenditure is excessive for a study of this nature and that a lesser amount of [REDACTED] should be allowed.
- 2.47 No explanation was given to explain how the ERA arrived at its allowed value.
- 2.48 DBP submits that the full amount proposed by DBP in its Original AA Proposal should be allowed. The following additional information is provided in support of this submission.
- 2.49 The DBNGP, with the completion of 1200 km of loopline in 10 separate sections, and with Loop 0 being the only section that is completely looped to the next compressor station, poses technical challenges in the monitoring of gas mixes at different sections of the DBNGP.
- 2.50 This is further challenged by the proposed connection of Inlet Points for Devil Creek, Macedon and Gorgon located on the looplines whilst gas from the existing fields operated by [REDACTED] and the NWSG is supplied into the DBNGP directly into the original main line.
- 2.51 The FEED is complex and requires an engineering modelling study to be undertaken to assess the gas flow from the Inlets, the mixing points where the loops and mainline join to determine strategic locations of gas chromatographs to monitor gas blend for the purpose of linepack calculations as well as determining the best type of gas chromatograph for use along the DBNGP.
- 2.52 The FEED scope is not limited to costing of installing gas chromatographs on the pipeline but the detail flow modelling and blending study required to determine optimised location which is unique to the DBNGP. This will be particularly important with the new gas quality legislation allowing broader specification gas to be introduced into the DBNGP.
- 2.53 Placing strategic gas chromatographs (GCs) is a much cheaper alternative to the installation of Mixing Facility on the DBNGP.
- 2.54 The FEED study - to be completed at an estimated [REDACTED] - will utilise specialist pipeline mixing/blending models along 11 sections of the DBNGP from Loop 0 to Loop 10.
- 2.55 Additional resources are required to complement the internal modelling capabilities available to DBP. DBP requires external specialist consultants from the US that are familiar with flow mixing processes to undertake several scenarios of on each GC location including:
- (a) Tracking variation in gas quality and the affects that will inevitably have on line-pack calculations, gas quality data download and Gas Unaccounted For (GUF)
 - (b) Analyse and quantify gas quality variation and the affects on metering accuracy at peaking power stations
 - (c) Analyse, define and cost the changes required to implement gas quality tracking in SCADA, 'GMass' and CRS

- (d) Review the infrastructure at the recommended GC locations to support GC installation
- (e) Analyse, define and cost the scope for installation of gas chromatographs at recommended strategic locations

2.56 This diagram shows the existing location of GCs before the interconnection of the Loops.



2.57 DBP submits that the original amount for this project included in the Original AA Proposal is justified for inclusion as forecast conforming capital expenditure.

Relocation of microwave batteries FEED

- 2.58 In paragraph 289 of the Draft Decision, the ERA endorses the conclusion of Halcrow that there is an unwarranted period of time between the FEED study and the forecast timing of the works for this project. So, the ERA has concluded that the timing of the works and the associated expenditure should be moved from 2011 to 2014.
- 2.59 DBP provides this further justification in response which should justify the expenditure being forecast conforming capital expenditure for the 2011 year.
- 2.60 As has been outlined in paragraphs 2.5 to 2.11 of this submission, the stay in business scope and obligations of the DBNGP are managed in a rolling 5 year plan to ensure major works are planned and costed at least 2 years in advance. This is to ensure project cash flows are managed in a rolling 5 year cycle rather than on a year by year basis. It requires that all major works are identified early from the asset management plan and the equipment obsolescence matrix and consulted within the stay in business process so that scoping and engineering is completed early to ensure scope and costs are entered into the stay in business process.
- 2.61 The purpose of conducting the FEED for the relocation of the batteries into the vacated Communications Hut is not only to enable planning directly for this project. It is also required to inform other planning requirements for the DBNGP, including:
- (a) The CCVTs are being progressively upgraded as the prime source of AC Power for sites north of CS7 where Horizon grid network does not service. With the commissioning and bedding down of these new more modern units, there is a FEED planned to review the requirements of AC Power at all MLV and Meter Stations to determine if the GEAs that are due for replacement in the next 5 years can be phased out by relying on the more reliable CCVTs
 - (b) The FEED for the relocation of batteries into the Communication Hut would fit this exercise as a more cost effective option than upgrading the 25 year old 10 KW GEAs by also increasing the capacity of the batteries from 36 hours to 48 hours.
 - (c) The timing of the FEED and planned work gives ample time to review and plan for the future changes to AC Power for remote sites using modern technology and changes that have occurred with the shared services of the Microwave with Western Power and Telstra.
- 2.62 The FEED study is required to review the scope of relocating the existing batteries located outside of the Communication Hut into the building where the old batteries used to be located. The work also needs to assess the overall increase in capacity from current to 48 hours of service as part of the rationalization of AC Power with the newly CCVTs and the 25 year old 10 KW GEAs.
- 2.63 The sites include all repeater sites from MLV7 to MLV80, being a total of 21 sites.
- 2.64 It is therefore prudent to undertake this work in 2011 and therefore to forecast the expenditure as conforming capital expenditure in 2011.

Structural analysis and upgrade of microwave towers

- 2.65 In paragraph 289 of the Draft Decision, the ERA endorses the conclusion of Halcrow that the costs for this project have not been justified as prudent and that the costs should be removed from the forecast capital expenditure.
- 2.66 DBP has revisited its forecast for structural analysis and the upgrade of microwave towers and no longer intends to proceed with this project. Accordingly, DBP has not included expenditure for this project in the total of forecast conforming capital expenditure included in Amended AA Proposal

Upgrade of solar panel (FEED and project)

- 2.67 In paragraph 289 of the Draft Decision, the ERA endorses the conclusion of Halcrow that there is an unwarranted period of time between the FEED study and the forecast timing of the works for this project. The ERA's consultant questions the timing of the expenditure for the FEED study component of this project and concludes that it is more appropriate for it to be incurred in 2012 rather than 2011.
- 2.68 All 6 Spur Sites are targeted for the solar panel upgrade as they are the only solar powered sites on the DBNGP. The timing of the FEED is consistent with the planning process for any major work that is or may trigger a change in design intent to provide ample management time to deal with consequent changes (in this regard, see DBP's submissions in paragraphs 2.5 to 2.11 of this submission).
- 2.69 It is DBP experience that modern technology is more likely to trigger a change from the original design intent of the DBNGP. The purpose of the FEED is to:
- (a) Establish the scope of work as this could include replacement of rectifiers, batteries etc
 - (b) Establish if panels could be retrofitted.
 - (c) Confirm the design as technology has progressed after the initial installation 25 years ago.
- 2.70 Additionally, it is already known to DBP that solar panels at MLV34 have sustained extensive damage over the past few years (due to natural weather events) that results in constant power problems at the site. This is an additional reason why DBP has proposed expenditure to be incurred during CY 2011.
- 2.71 DBP maintains its proposed forecast that expenditure related to the FEED upgrade of solar panels is required for 2011.

Replacement of CCVTs

- 2.72 In paragraph 289 of the Draft Decision, the ERA endorses the conclusion of Halcrow that there is a portion of the expenditure for this project which should not be allowed (being █████ out of the total project cost of █████ (nominal)) because \$█████ (nominal) for the same project had already been included in DBP's actual conforming capital expenditure for 2010.

- 2.73 Neither Halcrow nor the ERA provide reasons as to why both the amount incurred in 2010 and the amount of expenditure forecast to be incurred in 2011 are not conforming capital expenditure.
- 2.74 DBP has revisited its forecast and in the Amended AA Proposal, it has proposed a refinement to the proposed forecast expenditure for this project. This is justified below.
- 2.75 CCVT (Closed Cycle Vapor Turbine) units provide prime AC power to MLV/Repeater sites north of CS7 where the Horizon grid network is not available. Most of these units have been in operation for 25 years but the gas turbine modules would have been replaced regularly during its life. During 2009, Ormat, the manufacturer of CCVTs based in Israel, advised DBP that they are no longer able to refurbish these units.
- 2.76 This left DBP with broken CCVT's at some MLV sites. These sites were deployed with diesel generators. DBP embarked in August 2009 on a project to replace all broken CCVT's over a period of time. At the time that the new CCVT units arrived in Australia in Oct 2010, there have been a total of 10 units out of operation.
- 2.77 To summarize, the CCVTs have reached their design life and replacement was managed in two ways:
- (a) Part 1 – the CCVTs that coincide and provide power to the Loop MLV's as well as the existing MLV's were project managed as part of the Stage 5B expansion program. The expenditure for these works was included in the conforming capital expenditure for stage 5B expansion project.
 - (b) Part 2 – the CCVTs that do not coincide with the Loop MLV's were funded from the SIB process and therefore it is this amount that DBP is seeking to include in its forecast stay in business capital expenditure for 2011.
- 2.78 In total, 18 CCVT's were replaced and the project completion was achieved in April 2011. There is one old generation CCVT left on the DBNGP and it will be replaced in 2011 and 2012. As part of DBP's Amended AA Proposal, DBP provided for an amount of \$ [REDACTED] (\$2010) for this project that related to the SIB process. This reflected the amount that DBP incurred on this part 2 of the project up to 31 December 2010 but which had not been capitalised at that time. It is important to note that DBP did not, in its Amended AA Proposal, include an amount for the remaining costs that have been incurred since 31 December 2011 and which are forecast to be incurred for this part 2 of the project. This covers not only the remaining CCVT still to be replaced (as noted above), but also the cost of purchasing spare parts for the 19 CCVTs and the costs of document handover and control.
- 2.79 DBP does not intend providing a further Amended AA Proposal to address this omission (totalling approximately \$ [REDACTED]). Rather, it will be addressed at the time DBP submits its proposed revisions for the access arrangement which are due to commence on 1 January 2016.

Relocation of disaster recovery system – FEED and project

- 2.80 In paragraph 289 of the Draft Decision, the ERA endorses Halcrow's conclusions in relation to this project that the proposed works are prudent but that the timing of the expenditure for the FEED study component of this project should be incurred in 2013 rather than 2012.

- 2.81 DBP maintains forecast expenditure for the FEED study capital expenditure to incur in 2012 rather than 2013.
- 2.82 DBP requires this time to undertake the appropriate decision making procedures in accordance with DBP's planning process outlined in paragraphs 2.5 to 2.11 of this submission.

Upgrade of security

- 2.83 In paragraph 289 of the Draft Decision, the ERA endorses Halcrow's conclusions in relation to this project that there is inadequate information before it to justify the expenditure and that all of the proposed expenditure in the Original AA Proposal for this project (being [REDACTED] over 2011 to 2014) should be removed and not included in the Amended AA Proposal.
- 2.84 DBP disagrees with this conclusion and therefore, in its Amended AA Proposal, DBP has retained the amount of forecast expenditure that was included in the Original AA Proposal for this project. The following is further substantiation for the position that the ERA should conclude that the forecast expenditure is conforming capital expenditure.
- 2.85 All of the facilities on the DBNGP - Meter stations, MLV, Compressor Stations etc - were locked with a standard lock and key System that managed the security of the DBNGP in the first 25 years of service.
- 2.86 The issuing of the keys was controlled through a register. Since the commissioning of the DBNGP, as a result of the ownership changing on a number of occasions, and the significant number of contractors who were engaged in the recent expansion projects, a significant number of keys were issued to vendors and contractors.
- 2.87 Many of these keys had not been returned to DBP and as a result, not only did many keys become uncontrolled, but the key register became unreliable.
- 2.88 In addition, the DBNGP has been placed on the nationally significant infrastructure register by ASIO. It recommended that the key and locking arrangements for the DBNGP be tightened so as to reduce the security risk.
- 2.89 Accordingly a new locking system has been proposed to be progressively introduced across all sites that enable keys to be "deactivated" should they be handed to personnel but not returned.
- 2.90 Given the above, DBP maintains its current forecast expenditure of [REDACTED] during CY 2011 and CY 2014 is required to ensure the safe and reliable operation of the pipeline.

SCADA upgrade

- 2.91 The ERA has concluded that the forecast expenditure associated with this project (being [REDACTED] in 2011) should be removed from the forecast capital expenditure because Halcrow had been advised that the expenditure for this project had actually been incurred in 2010.

- 2.92 DBP had previously advised of an error in the amount of expenditure included in the Original AA Proposal for this project. DBP has corrected this error in its Amended AA Proposal by providing for [REDACTED] in expenditure in 2011.
- 2.93 The reason for the expenditure being incurred and recorded as conforming capital expenditure in 2011 instead of 2010 is because, in accordance with the audited financial statements, it had not yet been entered into DBP's asset register and had been recorded as an "Asset under Construction". This is explained in more detail in section 3 of this submission.
- 2.94 The reason for the amount of the expenditure in 2011 for this project being different in the Amended AA Proposal to that in the Original AA Proposal is because of the fact that all of the costs are now recorded in 2011 rather than was the case in the Original AA Proposal, where some was recorded in 2010 and the balance in 2011.
- 2.95 To ensure that DBP's figures align with its statutory reports, the capital expenditure for this project will be treated as forecast conforming capital expenditure in 2011.

Computer purchases

- 2.96 In paragraph 289 of the Draft Decision the ERA concludes, based on advice from Halcrow, that the forecast expenditure for these purchases is excessive and that only [REDACTED] be included for each year of the access arrangement period (being a total of [REDACTED]) instead of the total amount of \$[REDACTED] proposed by DBP. The reason given for reaching this conclusion is that the unit cost per computer is not prudent.
- 2.97 DBP makes the following submissions in response.
- 2.98 Firstly, DBP has approximately 200 staff and many of its employees require more than one laptop or desktop - ie. many of DBP field staff and technical experts have dedicated laptops that run specialised diagnostic software or are isolated from the internet and corporate network for security purposes.
- 2.99 Additionally a desktop is maintained at each compressor station for visiting personnel.
- 2.100 DBP's current computer asset register reflects 276 machines.
- 2.101 DBP agrees with Halcrow's assumption that fair replacement cost can be assumed to be [REDACTED].
- 2.102 Based on this, assuming that each computer were to be replaced once every 5 years (which DBP submits is not best practice – they should be replaced every 2 to 3 years), DBP would need to allow for a total cost of at least [REDACTED] over the 5 year access arrangement period to cover the costs of replacement of the machines. DBP submits therefore that it is prudent and perhaps too conservative, to provide [REDACTED] as forecast capital expenditure for this project.
- 2.103 Accordingly, DBP has maintained in its Amended AA Proposal its forecast of [REDACTED] per annum as conforming forecast capital expenditure for this project.

New vehicle purchases

- 2.104 In paragraph 289 of the Draft Decision the ERA concludes, based on advice from Halcrow, that DBP has provided inadequate information to justify the expenditure and

therefore, the forecast expenditure for these purchases proposed by DBP in the Original AA Proposal should be removed.

- 2.105 DBP makes the following further submissions in support of the proposed forecast capital expenditure for these purchasers and accordingly, DBP submits that it should be accepted by the ERA as forecast conforming capital expenditure for the access arrangement period.
- 2.106 The vehicles forecasted for 2011 relate to additional requirements with the team involved in managing meter stations due to the increased number of outlet points and inlet points that have been and are being added to the DBNGP system. This includes Neerabup, Mandurah and HEGT outlet stations that are either now in service or planned for the south west and Pluto, 7 Mile, Cape Preston, Devil Creek, Gorgon and Macedon inlet and outlet stations that are in the Pilbara region.
- 2.107 The vehicles are standard 4WD, utilities with tray for holding of tools and equipment fully fitted with DBP's Safety Requirements at an average cost of [REDACTED] per vehicle.
- 2.108 DBP maintains its new vehicle forecast SIB capital expenditure in CY 2011 as [REDACTED].

OSA Fee – Project Management Retainer Fee

- 2.109 Paragraphs 208 to 237 of the Draft Decision deal with the capital expenditure incurred by DBP as project management fees and project management retainer fees under an OSA. In paragraph 291 of the Draft Decision, the ERA requires the forecast capital expenditure proposed by DBP to be remove the provision for the project management retainer fee, amounting to \$2.311m in each year of the access arrangement period to a total of \$11.556m (\$2010). This is then reflected in the table 17 of the Draft Decision and Amendment 6.
- 2.110 The reasoning given by the ERA for disallowing this type of capital expenditure, which is based on advice from its consultant Halcrow, is as follows:
- (a) DBP has not provided information that satisfies the ERA that the payment of the retainer fee is necessary to be able to contract for project management services within the required time frames for an expansion of the DBNGP (**Reason 1**).
 - (b) The retainer fee is not a genuine fee for service or facility to be provided by WestNet given the following (**Reason 2**):
 - (i) The lack of a detailed specification in the OSA of any relevant requirements to be met by WestNet in return for the fee.
 - (ii) A view of Halcrow that there is a lack of precedent to suggest that the nature and quantum of the fee are consistent with common industry practice.
 - (iii) DBP has forecast no expansion of the DBNGP during the access arrangement period.
 - (c) The retainer fee is not consistent with the prudence and efficiency requirements of Rule 79(1) (**Reason 3**).
- 2.111 DBP responds to each of these reasons in turn.

Response to Reason 1

- 2.112 In paragraph 215 of the Draft Decision, the ERA accepts that contractual arrangements between DBP, [REDACTED] are a reasonable contracting strategy. Confirming this, the ERA then states that its advice is that alliance contracting arrangements such as the OSA are a reasonable contracting strategy for capital works given the time constraints in the enhancement projects and the limited number of suppliers available in the market.
- 2.113 In paragraphs 227 and 234 confirm that there is nothing before the ERA in relation to the OSA or the Amended and Restated OSA or the circumstances of the negotiation of both documents to cause the ERA to suspect that the agreement is anything other than an arm's-length arrangement consistent with an intention to the owners of the DBNGP seeking to minimize the cost of service.
- 2.114 This reasoning seems inconsistent with Reason 1.
- 2.115 Notwithstanding that, DBP submits that the retainer fee is necessary to be able to contract project management services within the required time framed for an expansion of the DBNGP.
- 2.116 DBP refers the ERA to paragraph 6.7 of its Submission 1 at which DBP states that it is obliged to deliver expansions to pipeline capacity in accordance with the timing requirements of shippers and prospective shippers and therefore it is critical that systems and procedures are maintained up to date and resources are available to manage preliminary design work so that, if a shipper requests additional capacity, the expansion can be delivered on time. This is particularly important given the terms of the Standard Shipper Contract and [REDACTED] which set a tight timeframe by which capacity must be commissioned following the lodgment of an access request and which also provide that the shipper will be exposed to liquidated damages for failing to meet that timeframe.
- 2.117 Under DBP's contractual obligations it must deliver additional capacity if requested within as little as 30 months from the date an access request is made.
- 2.118 Additionally, DBP stated in Submission 1 that the retainer fee would be significantly smaller than the additional costs that the Operator is likely to incur in bringing a new project management team up to speed with the requirements of an expansion project for the DBNGP.

Response to Reason 2

- 2.119 While DBP is not convinced that this is a relevant consideration, DBP responds to the points raised in Reason 2 in turn to demonstrate that it is a genuine fee for service.
- 2.120 In DBP's Submission 9 at paragraph 17.3, it is explained that the retainer fee was established at the time when the OSA was renegotiated in 2009. The following factors made it prudent and efficient for DBP to agree to pay the retainer fee on an ongoing basis:
- (a) In early 2009, there was a likelihood that the continual expansion program that had been undertaken since 2005 would not continue beyond stage 5B;

- (b) It was important to ensure that the project manager maintained the relevant personnel with the corporate knowledge and understanding of the pipeline and its operations until any transitioning issues could be dealt with.
- (c) It was also important to secure the project management services by ensuring specific individuals could remain 'on standby' to commence any further project, should it materialise in time to complete a business case and allow an investment decision to be made by the Board. This is particularly relevant given the contractual obligations to deliver additional capacity by a certain time (as outlined above).

2.121 It should be noted that the OSA does provide that in consideration for the payment of the retainer fee, WestNet must retain the necessary personnel, corporate systems and procedures to maintain an ongoing capability to provide the Project Management Services irrespective of whether an Additional Capacity Expansion is being planned or undertaken. While this is not a detailed specification of the requirements, the circumstances were such that it outlined the core requirements to enable DBP to meet its timing obligations to shippers for any future expansion.

Response to Reason 3

- 2.122 The retainer fee is efficient because it covers an expansive range of services provided by WestNet under the OSA in relation to capacity expansions and capital works. These include the retention of all project services, from conceptual design, through FEED studies, planning, approvals, construction, commissioning and final delivery of the projects for operation (and all services to support these activities e.g. human resources management, and financial control).
- 2.123 WestNet must maintain all systems and processes developed during the expansion projects to date. This includes:
- (a) All of the processes that were documented as part of the decision to internalise the functions to DBP in 2009;
 - (b) Document records;
 - (c) A chart of accounts for recording and capturing costs;
- 2.124 WestNet also has alliance arrangements with key contractors such as approvals coordinators to ensure they can be accessed at short notice for future expansions.
- 2.125 Finally, WestNet has a contractual obligation which, if it does not comply with, would expose it to having the OSA terminated by DBP. Therefore this is the most significant incentive to ensure that WestNet retains the appropriate levels of expertise, systems and procedures.
- 2.126 In relation to the reason that there is a lack of precedent to establish that the nature and quantum of the retainer fee is consistent with common industry practice, Rule 79(1)(a) requires that conforming capital expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services.
- 2.127 DBP addressed the 4 limbs required by R.79(1)(a) in its Submission 9 Section 17 - Prudency of particular cost inputs.

- 2.128 Paragraphs 17.11 and 17.12 of Submission 9 provide justification that expenses have been incurred by a prudent Service Provider acting efficiently. DBP provided 6 key reasons supporting its assertion that expenses have been incurred by a prudent Service Provider acting efficiently:
- (a) It is prudent for the ownership consortium for the DBNGP to have relied on the resources and expertise of one of the members of that consortium to provide services relating to the operation and expansion of the pipeline.
 - (b) At acquisition negotiations took place at arm's length and all parties had experience in negotiating major construction and operating contracts. Moreover, Alcoa and DUET were commercially motivated to ensure that any fees charged by one member of the consortium were at reasonable levels.
 - (c) There was no reason, and there continues to be no reason, for either DUET or Alcoa, to have any commercial or other interest in Alinta deriving non-commercial fees for performing services under the OSA, or for the contractual arrangements to be of a nature, that are not efficient or in accordance with good or accepted industry practice.
 - (d) The amount for the retainer fee is efficient because it covers an expansive range of services provided by WestNet under the OSA.
 - (e) DBP has a positive obligation to seek minimise the capital costs of expansion of the DBNGP under the Standard Shipper Contract.
- 2.129 Paragraphs 17.13 and 17.17 of Submission 9 provide justification that expenses have been incurred by a prudent Service Provider acting in accordance with accepted good industry practice. DBP provided 3 key reasons supporting its assertion that expenses have been incurred by a prudent Service Provider acting in accordance with accepted good industry practice:
- (a) Project management fees generally are accepted industry practice in the construction industry.
 - (b) Shippers on the DBNGP have, through the tariff adjustment mechanism under the Standard Shipper Contract, agreed that fees such as the retainer fee can be included in the tariff.
- 2.130 Paragraph 17.18 of Submission 9 provides justification that expenses have been incurred by a prudent Service Provider to achieve the lowest sustainable cost of providing the Services.
- 2.131 The reasons outlined above to substantiate the costs as those incurred by a Service Provider acting efficiently apply equally to substantiate the costs as being incurred by a prudent Service Provider to achieve the lowest sustainable costs of providing the Services.
- 2.132 DBP submits that the fact that DBP has forecast no expansion of the DBNGP for the 2010 to 2015 access arrangement period to be an irrelevant consideration to take into account when assessing whether the costs are prudent. To the extent that it is a relevant consideration however, the ERA should concern itself with the position in the market at the time the fee was agreed to – and in this regard DBP refers the ERA to DBP's previous submissions in this chapter.

- 2.133 Even if the next expansion project does not occur until 2020, the additional costs would have to be less than \$20 million for the retainer fee not to have been efficient. In the context of expansions that have been between \$400 – 600 million, this up front cost could deliver significantly greater savings and benefits to the Operator and shippers.

Project Management Fee

- 2.134 In paragraph 237 of the Draft Decision, the ERA states that it is concerned that the project management fee may represent a negotiated compensation to Alinta Asset Management and WestNet Energy Services for the termination of the management fee, rather than a fee for an additional service or obligation under the amended OSA.
- 2.135 While the ERA has not removed the expenditure associated with the payment by DBP to WestNet of the project management fee (as opposed to the retainer fee), the ERA fails to outline any reasoning to support this statement.
- 2.136 DBP submits therefore that if the ERA is inclined, in the final decision, to conclude that this expenditure should not be allowed as conforming capital expenditure, the ERA must provide DBP with an opportunity to respond to its reasons, otherwise it will have denied a fair hearing to DBP.
- 2.137 In the meantime, DBP submits that the project management fee is not a negotiated compensation to AAM or WNES for the termination of the management fee. The project management fee has been payable under the OSA since its inception – it is not a new fee.
- 2.138 Moreover, the ERA has previously formed the view that it is an appropriate fee. For example, in the ERA's analysis contained in paragraphs examining the contractual arrangements between parties, the ERA concludes that "the Authority is of the view that there is no reason to suspect that the OSA is anything other than an arm's-length arrangement consistent with an intention of the owners of the DBNGP to minimise the cost of services provided under the agreement" (paragraph 227).

3. UPDATE OF CAPEX VALUES FOR 2010 & 2011

- 3.1 The Amended AA Proposal contains values for conforming capital expenditure in years 2010 and 2011 (in this case it is conforming forecast capital expenditure) which differ from the values for conforming capital expenditure that were included in the Original AA Proposal for those two years.
- 3.2 There are two key reasons for this difference.
- 3.3 Firstly, in line with the ERA's draft decision, DBP has proposed an Amended AA Proposal that includes capital expenditure amounts that are reconcilable to DBP's annual and half yearly audited financial statements. This is outlined in more detail in submission 52.
- 3.4 As a result of this, the timing of some of the capital expenditure included in the Amended AA Proposal has changed from the year it was reported in the Original AA Proposal as having been incurred.
- 3.5 In the Original AA Proposal, DBP had intended to report items of capital expenditure as having been incurred (and therefore to be rolled into capital base) in the year that the assets to which the expenditure relates were commissioned or first entered into service. However, there were two reasons why this did not occur:
- (a) Firstly, in some cases, assets were recorded as having been capitalised in the year in which they were physically entered into the asset register. In some cases this may have been in excess of 2 years after the asset was commissioned or entered into service.
 - (b) Secondly, due to these significant delays in assets being physically entered into the accounting asset register, the asset register was not up to date at the time DBP came to file its Original AA Proposal.
- 3.6 Until these assets were physically entered into the asset register, the values attributed to these assets continued to be recorded as "Assets under Construction" or "Construction Work in Progress" in DBP's yearly and half yearly financial statements.
- 3.7 The second key reason why there is a difference in the 2010 and 2011 capital expenditure figures is that, at the time of DBP filing its Original AA Proposal in April 2010, DBP only had available to it, an estimate of the expenditure it would actually incur in 2010. Given the draft decision was issued in 2011 and after DBP's board had reviewed and approved the half yearly financial accounts, DBP now has an accurate record of its actual expenditure for the 2010 calendar year.
- 3.8 This updated information was used as the basis for the conforming capital expenditure for 2010 and 2011 included in DBP's Amended AA Proposal lodged in April 2011. So, the items of expenditure included in the Amended AA Proposal as conforming capital expenditure for the year 2010 include the following:
- (a) Expenditure for assets which were entered into DBP's asset register in 2010;
 - (b) Expenditure recorded as having been incurred in 2009 but which, by 31 December 2009, had yet to be entered into the asset register for the DBNGP. These are the items recorded in the annual audited financial statements for 2009 under the line item named "Assets under Construction" or "CWIP".

3.9 The items of expenditure included in the Amended AA Proposal as forecast conforming capital expenditure for the year 2011 include the following:

- (a) Expenditure recorded as having been incurred in 2010 but which, by 31 December 2010, had yet to be entered into the asset register for the DBNGP. These are the items recorded in the annual audited financial statements for 2010 under the line item named "Assets under Construction" or "CWIP".
- (b) Items of expenditure which DBP forecasts will be incurred in 2011 and entered into the asset register in that same year.

Capital Works in Progress

Stage 5A	CWIP Balance	2011	2012	2013	2014	2015
Compressor Stations	6,994,808	6,994,808	0	0	0	0
Meter Stations	4,978,245	4,978,245	0	0	0	0
Pipeline	0	0	0	0	0	0
Other	1,742,242	1,742,242	0	0	0	0

Stage 5B	CWIP Balance	2011	2012	2013	2014	2015
Compressor Stations	12,269,982	12,269,982	0	0	0	0
Meter Stations	26,558,110	26,558,110	0	0	0	0
Pipeline	0	0	0	0	0	0
Other	3,372,044	3,372,044	0	0	0	0

SIB	CWIP Balance	2011	2012	2013	2014	2015
Compressor Stations	2,419,554	2,419,554	0	0	0	0
Meter Stations	88,580	88,580	0	0	0	0
Pipeline	3,503,297	3,503,297	0	0	0	0
Other	29,384,185	29,384,185	0	0	0	0

SIB CWIP Compressor Station

Description	CWIP Balance	2011	2012	2013	2014	2015
CS 2/2, 4/2 & 7/2 Replacement of Turbine Air Inlet Filters						
CS2 & 4, Replacement of GEA Fire and Gas System						
CS mech isolations of LM500 & Centaur Units						
FEED Fire & Gas philosophy for DBNGP						
FEED Replacement CS vent Attenuators and Station Vents CS5, CS8						
Replacement of Compressor Control at CS2,4,7 (Allen Bradley, Solar turbine control system, PLC 5/80 E)						
Replacement of Compressor Control at CS10 (Allen Bradley, Solar turbine control system, PLC 5/25)						
Development of Design Basis for Air Compressors (CS2, 4 and 7)						
Replacement of station PLC 5 at ACS sites and CS10						
Replacement of stage 3A turbine air inlet filters						
Replacement Of Air Conditioning At Compressor Stations						
Replacement of Air Compressors At ACS sites						
Compressor Station Total	2,419,554	2,419,554	0	0	0	0

SIB CWIP Metering

MLV117 to Clifton Rd Meter Station: Communications Network Upgrade						
Detailed FEED - Replacement of meter stations flow computers/RTUs						
Detailed FEED - SW Comm's Upgrade (for Sou h of R43)						
Pinjar PS Air Conditioner Replacement						
Metering Total	88,580	88,580	0	0	0	0

SIB CWIP Pipeline

Refurbishment of Underground Pipework						
Intelligent Piggings						
Coating and Earthing Replacement at CS1,3,5 & 8						
Refurbishment of Compressor Station Pipework						
Pipeline Total	3,503,297	3,503,297	0	0	0	0

SIB CWIP Other

Annual true up MS EA licences						
General Office Requirements						
PC replacement plan						
Additional PC & Equipment purchases						
ICS-ICT Working Group						
Management of Change						
Tools and equipment for SDO and Maintenance						
Dampier Facilities - Communications Upgrade						
Increase Maximo Users Licences						
Locking devices for Permit to Work Isolation						
DBP SAP Cash Flow reporting						
FEED Repeaters 10, 11 & 21 - Towers Structural upgrades						
FEED Analysis of Integrity of Microwave Towers at Repeaters 3, 4, 7 & 9						
FEED Review of Odorant Systems						
Upgrade of Communication System North of Karratha						
Replacement of DBNGP vehicles						
Electronic Noticeboard						
Implementation of Document Management System						
Scada Upgrade						
Replacement of CCVT						
CRS - Technical Upgrade + DR						
Replacement of PVC Piping at Waste Oil Recoveries at Compressor Stations						
CRS - General Enhancements						
CRS - Website for shippers						
Upgrade Maximo Maintenance System						
PP Management of Change Control FY2008						
PP Southern Communicati						
Management of Change Control FY2009						
CRS Upgrade						
Microwave O&M set up costs						
Site Radiation Folders to be developed for new microwave system						
Replacement of Fleet Vehicles						
Citrix - BAU						
SOE - BAU (Business as usual)						
Cura - BAU						
TX1						
SAP - TX2						
User Migration - TX2						
Network Separation - TX2						
Data Classification - TX2						
TX2 Office Fit Out						
CRS - [REDACTED] exempt invoicing for commodity charges						
Management of Change Control						
Project Management Capabilities Implementation						
Tools for SDO & Maintenance Divisions						
Gym Equipment for the Compressor Sites						
ProMaster Express Automated Purchase Card System						
Microwave Digitalisation						
Other Total	29,384,185	29,384,185	0	0	0	0

3.10 As a result of this process, DBP has identified a number of projects with respect to which the associated expenditure was incurred in 2010 and either:

- (a) was capitalised in that year (according to the audited annual and financial statements); or
- (b) was only included as CWIP in the half yearly audited financial statements for the year 31 December 2010,

but which was not included in DBP's Original AA Proposal but has now been included in the Amended AA Proposal.

- 3.11 Accordingly, the remaining part of this section of the submission contains a justification of each item of expenditure against the criteria in Rule 87 of the NGR.

Additional Justification required for CWIP projects

- 3.12 There are 7 projects that appear on the CWIP tables able that are yet to be justified to the regulator as either actual expenditure from 2005 to 2010 or forecast capital expenditure from 2011 to 2015.
- 3.13 Of those 7, the following 6 projects are required to be justified under R.79 on the NGL
- (a) CS 2/2, 4/2 & 7/2 Replacement of Turbine Air Inlet Filters
 - (b) Replacement of Stage 3A Turbine air Inlet Filters
 - (c) Development of Design Basis of Air Compressors (CS 2, 4 & 7)
 - (d) Intelligent Pigging
 - (e) Electronic Noticeboards
 - (f) ProMaster Express Automated Purchase Card System
- 3.14 The seventh, being the upgrade of the communications system at Karratha, is not being proposed to be justified as conforming capital expenditure given it is for an amount of [REDACTED].

CS 2/2, 4/2 & 7/2 Replacement of Turbine Air Inlet Filters

- 3.15 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 1 to this submission.
- 3.16 DBP has approved a budget of [REDACTED]. This provision relates to the installation of equipment acquired under the project called Replacement of Stage 3A Turbine Air Inlet Filters explained below.
- 3.17 An amount of [REDACTED] (incurred expenditure) has been included in the CWIP report as at 31 December 2010 and is therefore considered forecast expenditure for CY 2011.
- 3.18 DBP provides the following information required to satisfy Rule 79 of the NGR.
- 3.19 Replacement of the Stage 3A Turbine Air Inlet Filter Housing at Compressor Station 4, Unit 2 is required as the existing assembly at CS4 unit 2 had been affected by corrosion.
- 3.20 The capital expenditure is necessary to:
- (a) maintain integrity of services; and
 - (b) to maintain the service provider's capacity to meet levels of demand for service existing at the time the capital expenditure is incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity).

Replacement of Stage 3A Turbine air Inlet Filters

- 3.21 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 2.
- 3.22 DBP has approved a budget of [REDACTED]. DBP's incurred costs have been [REDACTED] the project has reached practical completion.
- 3.23 Replacement of the Stage 3A Turbine Air Inlet Filter Housing at Compressor Station 4, Unit 2 is required as the existing assembly at CS4 unit 2 had been affected by corrosion.
- 3.24 Deliverables included a complete new turbine air inlet filter assembly including ducting in stainless steel, the units are required to be a replication of the Stage 4 turbine air inlet filters to create further standardisation across DBP's fleet of Solar Mars 100 gas turbines and efficiency in terms of commonality of spare parts and maintenance.
- 3.25 The capital expenditure is necessary to:
- (a) maintain and improve the safety of services; and
 - (b) maintain the integrity of services.

Development of Design Basis of Air Compressors (CS 2, 4 & 7)

- 3.26 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 3.
- 3.27 DBP has approved a budget of [REDACTED]. DBP's incurred costs have been [REDACTED] the project has reached practical completion.
- 3.28 The [REDACTED] PLC5 Turbine Compressor Controls are in use on Compressor Station 2 Unit 2, Compressor Station 4 unit 2 and Compressor Station 7 unit 2. The PLC is now considered obsolete and now no longer supported by the manufacturer.
- 3.29 This project is for the FEED study required to make an assessment of the upgrade Solar Mars 100 Turbine Control bringing the equipment in line with turbine control upgrade carried out for all ACS units utilising an [REDACTED] Turbotronic Control Logic / Flex I/O PLC and TT400 HMI displays.
- 3.30 The capital expenditure is necessary to:
- (a) maintain and improve the safety of services; and
 - (b) maintain the integrity of services.

Intelligent Pigging

- 3.31 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 4.
- 3.32 DBP has approved a budget of [REDACTED]. DBP's incurred costs have been [REDACTED].

- 3.33 The scope of this project includes the preparation of the pipeline and alignment of all MLVs and testing of Launchers and Receives, pig signals and confirmation of all offtakes, LOR plugs and EOL status with Loop tie ins.
- 3.34 The project involves the calling of tender for an intelligent pigging contractor and required pre planning.
- 3.35 The second part of this project involves utilising data collected to assess the integrity of the pipeline and sections of defects that have to be excavated for baseline work, defect growth assessments and future predictive packaging of defects to inform DBP's dig up program over the next 10 years.
- 3.36 The capital expenditure is necessary to:
- (a) maintain and improve the safety of services; and
 - (b) maintain the integrity of services.

Upgrade of Communication System North of Karratha

- 3.37 Incurred expenditure for this project to date is [REDACTED].
- 3.38 DBP has not sought to include this project in its proposed forecast.

Electronic Notice boards

- 3.39 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 5.
- 3.40 DBP has approved a budget of [REDACTED]. DBP's incurred capital expenditure has been [REDACTED].
- 3.41 The core function of the electronic notice boards are to distribute safety alerts, bulletins, KPI's and general safety information in a timely and efficient manner to all personnel and visitors.
- 3.42 Business benefits of installing the safety electronic notice boards include:
- (a) More efficient distribution of safety information a requirement of the DBNGP safety case terms of communication.
 - (b) An additional communication medium located at sites for information other than safety information (outage planning, weather warnings, road closures, travel register etc..)
 - (c) Ability to use notice boards as video conferencing facilities at compressor stations, Jandakot and Esplanade reducing the requirement for travel.
 - (d) Increased corporate network connectivity at compressor station accommodation blocks allows after dark access to control systems from accommodation.
 - (e) Electronic notice boards allow delivery of training and presentations to compressor stations via video conference facilities.
 - (f) They remove the need for certain travel, thereby reducing costs and greenhouse gas emissions.

3.43 The capital expenditure is necessary to maintain and improve the safety of services.

ProMaster Express Automated Purchase Card System

3.44 DBP provides the signed Project Justification Form for the project as justification of capital expenditure as Attachment 6.

3.45 DBP has approved a budget of [REDACTED]. DBP's incurred capital expenditure has been [REDACTED]. The project has been completed.

3.46 The project is inclusive of implementation of the ProMaster Express, an automated expense management system for DBP purchase cards, expense reimbursement claims and kilometre travel reimbursement.

3.47 ProMaster Express enables direct download of financial information for banking institutions on a line by line basis for year user.

3.48 It is accessed by secure internet portal and systems provide transactional coding ability for users, efficient authorization process and automated upload functionality to SAP.

3.49 The attached Project Justification Form details the business case for the expenditure stating that DBP expects to produce savings with the implementation of the project.

3.50 Total savings across the organization was estimated to be [REDACTED] per month which after the monthly usage fee results in a net saving of [REDACTED] per month.

3.51 The benefit of implementing ProMaster is further supported by the greater level of clarity of cost information which assists reporting capability.

3.52 The capital expenditure is necessary to maintain and improve the safety of services.

4. CAPITAL CONTRIBUTIONS

- 4.1 In paragraph 300 of the draft decision the ERA stated it did not seek any adjustment to DBP's stated values of capital contributions.
- 4.2 Notwithstanding that, in DBP's Amended AA Proposal it has included an updated forecast of capital contributions made by both shippers and other parties such as producers. This has been necessary to reconcile its capital contributions to its statutory accounts a requirement of the draft decision.
- 4.3 The significant shift in values of forecast capital contributions can be attributed to the capital contributions that were considered Capital Projects in Progress at 31 December 2010. This change in accounting methodology has been explained in detail in section 3 of this submission.
- 4.4 The projects that the expenditure relate to have not, however, changed. Further explanation of each project is contained in this section of the submission.

Updating of timing and quantum for capital contributions

- 4.5 DBP's Original AA Proposal included the following amounts to be included in the capital base as capital contributions.

Table: Capital Expenditure Contributed by Shipper 2011 - 2015 (Original AA Proposal)

Capital Expenditure contributed by Shippers	2011	2012	2013	2014	2015	Total
Pipelines	0.00	0.00	0.00	0.00	0.00	0.00
Compression	0.00	0.00	0.00	0.00	0.00	0.00
Metering	0.23	2.66	1.44	0.00	0.00	4.32
Other depreciable assets	0.00	0.00	0.00	0.00	0.00	0.00
Sub Total	0.23	2.66	1.44	0.00	0.00	4.32

- 4.6 DBP's Amended AA Proposal contains the following forecast capital expenditure contributed to by shippers or producers.

Table: Capital Expenditure Contributed by Shipper 2011 - 2015 (Revised AA Proposal)

Capital Expenditure contributed by Shippers	2011	2012	2013	2014	2015	Total
Pipelines	15.17	0.00	0.00	0.00	0.00	15.17
Compression	2.68	0.00	0.00	0.00	0.00	2.68
Metering	3.71	2.72	1.47	0.00	0.00	7.90
Other depreciable assets	0.00	0.00	0.00	0.00	0.00	0.00
Sub Total	21.56	2.72	1.47	0.00	0.00	25.75

- 4.7 Consistent with DBP's Original AA Proposal and rule 82 of the NGR, DBP has included in the amended AA Proposal a mechanism to prevent DBP from benefitting, through increased revenue, from not only the shippers contributions but also the contributions of the producers. So, all of the forecast expenditure included in the above table has been included in the capital base but not in the Reference Tariff calculation.

- 4.8 Following is a summary of the value of each of the projects that were originally included in the Original AA Proposal for 2010 but which, have been recorded in the corrected amended AA Proposal as being expenditure to roll into the capital base in 2011. Following is a brief explanation of the projects.

Descrip	Project Description	CWIP balance
Compression	Mandurah Gate Station	
Compression Total		2,683,424
Linepipe		
Linepipe		
Linepipe		
Linepipe		
Linepipe		
Linepipe Total		3,319,092
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering		
Metering Total		15,058,300
Grand Total		21,060,816

- 4.9 **Mandurah Gate Station** - The town of Mandurah has experienced population growth to the extent that a new lateral from the DBNGP is required to supply gas to the domestic consumers. The gate station for the new lateral is to be located within the DBNGP easement in a secured compound near Readhead Road downstream of MLV141. The custody transfer at the outlet of the gate station will be connected to the inlet of the proposed Mandurah Lateral.
- 4.10 The proposed gate station will enable gas to be metered and supplied to the proposed Mandurah Lateral which will be built and owned by others. The general requirement for this site is to provide natural gas for transportation by a third party. As such the primary prerequisite is to supply a custody transfer metering facility. There is no requirement for this facility to include filtration, heating, or gas analysis. The gate station shall include facilities for gas odourisation to 15 mg/Sm3 as per standard domestic gas requirements.
- 4.11 The primary function of the Mandurah Gate Station Project is to provide an offtake from the DBNGP for a metered gas feed to the Mandurah Lateral Pipeline.
- 4.12 The Mandurah Gate Station Project will be constructed, tested and commissioned in accordance with the Petroleum Pipelines Act 1969 (WA) and AS2885 for DBP by the Contractor. DBNGP (WA) Nominees Pty Ltd, [DBP], is installing the Mandurah Gate Station to transport a metered natural gas supply from the DBNGP to the Mandurah Lateral Pipeline.

- 4.13 [REDACTED] - [REDACTED] is developing the [REDACTED], located approximately 100 kilometres south west of Karratha, WA. As part of the mining facilities a new 450MW gas fired power station is being installed requiring gas from the DBNGP.
- 4.14 The primary function of the [REDACTED] Project is to provide an offtake from the DBNGP for a metered gas feed to the [REDACTED] pipeline and power station.
- 4.15 The [REDACTED] Project will be constructed, tested and commissioned in accordance with the Petroleum Pipelines Act 1969 (WA) and AS2885 for DBP by the Contractor.
- 4.16 DBNGP (WA) Nominees Pty Ltd, [DBP], is installing the [REDACTED] to transport a metered natural gas supply from the DBNGP to the [REDACTED] and power station.
- 4.17 [REDACTED] is providing design and engineering consultancy services to DBP for the Project.
- 4.18 The Project will involve the planning, design, construction and commissioning of a Meter Station
- 4.19 [REDACTED] – The Gorgon Inlet Station compound will be connected to the loopline of the DBNGP and located approximately at KP137.74, downstream of MLVL18 at the discharge side of the Compressor Station CS1.
- 4.20 The Gorgon Inlet Station compound will include:
- A DN650 x DN500 hot tap on the DBNGP
 - Remotely operable shutdown valve with bypass
 - Pipework from DBNGP to 30m easement boundary
 - Gas chromatograph to measure Gorgon gas quality
 - SCADA and communications
 - Power supply from CS1 with battery backups
 - Cathodic protection and earthing
- 4.21 Blended gas sampling will be installed about 30km downstream of the main hot tap connection to sample blended gas quality. This will be located within the existing MLV19 compound, and will include the following scope:
- Sampling point via DN50 Cosasco fitting on the DBNGP
 - Pit and cover for sampling point
 - Gas chromatograph shelter for blended gas quality measurement
- 4.22 [REDACTED] The meter station will be fully enclosed in an expanded fenced compound to include an access gate, graded blue metal surface and warning signage.

- 4.23 This high level preliminary design report will be prepared to define the main parameters of the, high level budgetary estimate and proposed project execution and implementation strategy.
- 4.24 [REDACTED] Meter Station will consists of the following:
- Remotely operable shutdown valve to be controlled by DBP only
 - Bi-Directional Ultrasonic Flow Metering
 - Gas quality measurement – sampling for [REDACTED] gas (inlet/outlet) and blended gas 100m downstream
 - Pipework to the DBNGP / [REDACTED] Custody Transfer Point at the edge of the 40m extended DBNGP corridor
 - SCADA and communications
 - 230 VAC Power supply
 - Cathodic protection and earthing
- 4.25 [REDACTED] **Inlet Station** – [REDACTED] is constructing the Devil Creek Development Project (DCDP) which includes the onshore gas plant processing gas from the offshore Reindeer gas field. The Devil Creek Inlet (DCI) will be the inlet point of the DCDP gas into the DBNGP loop line.
- 4.26 DBP is engaged in a shipper funded project with [REDACTED] for the design, engineering, construction, commissioning and operation of the inlet point.
- 4.27 The primary function of the Devil Creek Inlet Connection Project is to provide an inlet point for the DCDP gas into the DBNGP loop line, via the [REDACTED] and installed metering station.
- 4.28 The Project is constructed, tested and commissioned in accordance with the Petroleum Pipelines Act (WA) and AS2885 for DBP by [REDACTED] under contract to DBP.
- 4.29 [REDACTED] **Meter Station-** DBP is undertaking the construction of the [REDACTED] Meter Station. The [REDACTED] Meter Station Project will allow for a metered gas supply from the Rockingham lateral to the [REDACTED] Power Generation Facility ([REDACTED]).
- 4.30 The offtake point and meter station will be located within the CS10 Compound at a location approximately at co-ordinates E 384 972.303 and N 6433 929.306.
- 4.31 The metering compound will be equipped with communications, control and measurement facilities.
- 4.32 The [REDACTED] Meter Station will be designed and operated as a standard DBNGP outlet meter station. DBP will assume 100% control of the meter station including shutdown valve.
- 4.33 This meter station will include, but is not limited to:
- (a) A connection to the existing DN200 branch on the CS10 Rockingham Lateral for supply of gas to the pressure control and metering equipment.

- (b) Provision of a remotely operated shutdown valve combined with actuator pressure reduction panel and bypass arrangement.
 - (c) Provision of a custody transfer metering run comprising of a coalescing filter with a bypass strainer and a USM with a Bypass.
 - (d) Provision of an IRTU for communication with DBP SCADA system and [REDACTED] SCADA system.
 - (e) Miscellaneous [REDACTED] communications, SCADA database development, flow measurement calculations and RTU programming required to support the [REDACTED] CS10 Meter Station facility.
 - (f) Dual/redundant pressure regulators with active/monitor capability to regulate pressure for the [REDACTED].
 - (g) Provision of a venturi nozzle to function as a secondary metering device and also as a maximum flow restriction device.
- 4.34 The scope includes the design, manufacture, inspection and testing, supply, pipe coating, delivery, installation, valve facilities, vents, relief or blowdown system including drains, painting, pressure testing, commissioning, cathodic protection, and any remedial works.
- 4.35 Engineering work shall be completed by DBP and its Subcontractors. Facility construction work will be performed by [REDACTED]
- 4.36 **Pluto Outlet Station** – A new LNG Plant is to be installed near Dampier requiring gas from the DBNGP. The meter station is to supply gas to the LNG Plant being constructed by [REDACTED]. The metering compound will be equipped with communications, control and measurement facilities.
- 4.37 The Commissioning scope of work includes:
- (a) Verification of construction works documentation e.g. ITRs;
 - (b) Inspection and verification of construction works;
 - (c) Commissioning of site utilities (power, lights);
 - (d) Commissioning of control cabinet (inclusive of IRTU's);
 - (e) Commissioning of metering skid;
 - (f) Initial AVT by DBP; and
 - (g) Final supply and verification of gas supply to the Pluto LNG Plant.
- 4.38 [REDACTED] **Meter Station** - install a tie-in point for connection to the operational site MLV 7 valve bypass line with a new DN200 isolation valve at approximately 7,704,016.829mN and 471,907.886mE (MGA 1994 zone 50), and extend MLV 7 compound to include the metering facilities and custody transfer metering skid.
- 4.39 The facility will be located at approximately kilometre point 22 on the DBNGP about 11 km south west of Karratha. The facility will supply gas to the proposed [REDACTED]
[REDACTED]

- 4.40 The meter station will be fenced within a compound 23 x 18 meters which is located within the DBNGP Corridor. The site is currently a Reserve vested to the Department for Regional Development (RDL) for gas pipeline purposes and is also the site of MLV 7. The temporary site office, crib room, ablutions, lay down area, site containers and workstation area will be located on the DBNGP corridor. The facility is accessible though a gravel road and is a Brownfields site.
- 4.41 The initial civil works will consist of removing 200mm of top soil from the existing ground surface and building up the compound.
- 4.42 The Mechanical and Electrical construction activities will consist of the: fabrication and installation of pipe supports and structural steel frame to support skid piping and equipment; fabrication and installation of a new DN200 header meter skid, comprising dual DN150 ultrasonic flow meters and associated instrumentation; fabrication and installation of piping from hot tap to meter skid including remote operable actuated ball valve; and fabrication and installation of above ground discharge piping from the meter skid to the [REDACTED] tie-in point with a flanged spool at the station boundary.
- 4.43 Following construction, the remaining permanent facilities will be the meter station and equipment hut. All site construction associated equipment will be removed.
- 4.44 [REDACTED] **Connection** - which is to be designed, installed and operated by DBP, will be located within the DBNGP easement. This inlet connection compound will include:
- (a) Tie-in to the DBNGP Loop line with a remotely operable shutdown valve (note that the shutdown valve shall be controlled by DBP only)
 - (b) Pipework to the Custody Transfer Point at the edge of the DBNGP easement
 - (c) Gas chromatographs to measure the inlet and blended gas qualities
 - (d) SCADA and communications
 - (e) Solar power supply with inverters
 - (f) Cathodic protection and earthing
- 4.45 [REDACTED] **Meter Station** – The [REDACTED] meter station refurbishment was involves the installation of the two low pressure regulators. The meter station was originally built about 20 years ago and was decommissioned for the last 6-7 years. It was recommissioned in January this year with spare temporary LP regulators. The scope of works included:
- (a) Demolition of old PCVs, turbine meters and electrical wiring
 - (b) Installation of a new turbine meter and Venturi nozzle in series proving
 - (c) Manufacture new spooling to fit new meter and nozzle
 - (d) Install new 5 off pressure & 3 off temperature transmitters
 - (e) Installation of venturi nozzle to Low pressure outlet line
 - (f) Install new filter elements
 - (g) Replace filter DP transmitters

- (h) Installation of a new iRTU
- (i) All electrical wiring redone with the exception of one transmitter wire
- (j) Install new batteries and battery charger
- (k) Installation of two refurbished Pietro Fiorentini Control valves for high pressure supply
- (l) Installation of two new Pietro Fiorentini Control valves for low pressure supply and flow control
- (m) Refurbishment of all Pressure Safety Valves
- (n) Installation of two 4"x600# ball valves on Pressure reduction skid
- (o) Digup and inspection of HP delivery line within [REDACTED] meter station
- (p) Installation of CP by [REDACTED] on the HP delivery line
- (q) Replacement of insulating gaskets at HP delivery line and station inlet
- (r) Installation of spark gap arrestor on HP delivery line
- (s) For the Metering hut:
 - Replace door
 - Replace air-conditioning unit
 - Replace metal roof sheeting and waterproofing

4.46 [REDACTED] **Meter Station Project**– The purpose of the [REDACTED] Meter Station reconfiguration project is to project an alternative fuel gas source to [REDACTED]. This will be achieved by installing a new 2" meter skid around the existing ZV2 Isolation Valve, which shall be closed and isolated. The new flow path shall have gas pass through the meter skid in reverse direction to the previous flow so that gas can be supplied from the DBNGP to the [REDACTED].

4.47 [REDACTED] - DBP is engaged in a project for the design, engineering and construction of a new Meter Station for supply of gas to the proposed [REDACTED] project located at [REDACTED]. The scope of work for this project is to be known as the [REDACTED].

4.48 The new meter station will be located within the existing [REDACTED] M7 Meter Station compound. The modifications to pipeline and facilities associated with the Project is covered under variation to the existing DBNGP Pipeline Licence - PL40; Variation No PL 40 STP-PLV-0005.

4.49 The outlet from the [REDACTED] Meter Station will connect to a new downstream pipeline directly supplying gas to the new turbines. This pipeline is to be constructed and owned by [REDACTED] and is outside the scope of this Project.

4.50 The Project will be constructed, tested and commissioned in accordance with the Petroleum Pipelines Act 1969 and ASME B31.3.

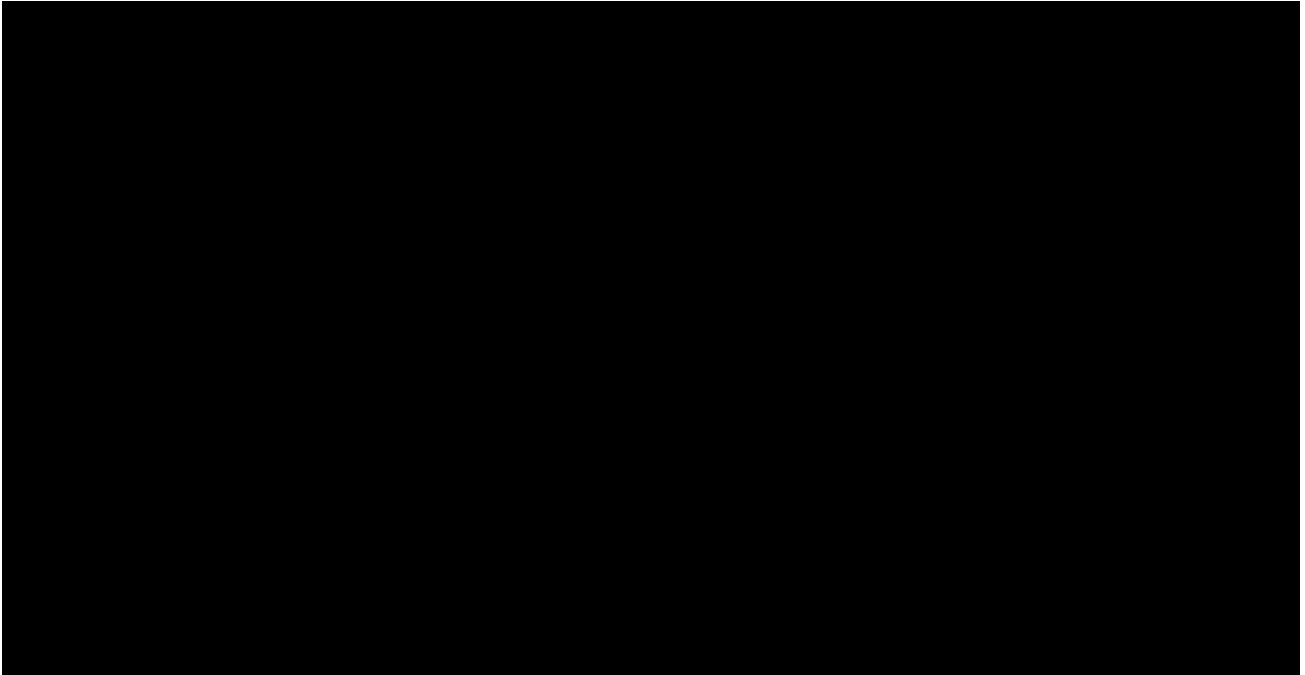
- 4.51 [REDACTED] – The main focus of the project is to perform due diligence on these stations to facilitate the transfer of these meter stations into the control of DBP.
- 4.52 [REDACTED] – a new Meter Station for supply of gas to the proposed [REDACTED] (High Efficiency Gas Turbine) project located at [REDACTED]. The scope of work for this project is to be known as the [REDACTED].
- 4.53 The new meter station will be located within the existing [REDACTED] M7 Meter Station compound. The modifications to pipeline and facilities associated with the Project is covered under variation to the existing DBNGP Pipeline Licence - PL40; Variation No PL 40 STP-PLV-0005.
- 4.54 The outlet from the [REDACTED] Meter Station will connect to a new downstream pipeline directly supplying gas to the new turbines. This pipeline is to be constructed and owned by [REDACTED] and is outside the scope of this Project.
- 4.55 The Project will be constructed, tested and commissioned in accordance with the Petroleum Pipelines Act 1969 and ASME B31.3.
- 4.56 [REDACTED] – This is a new project to upgrade the meter station as a result of the expansion of the [REDACTED]. It involves:

MLV 154/155 Compound:

- 4.57 Removal of Pressure Regulator PV-11 - the pressure regulator at the inlet to the [REDACTED] will be removed to allow greater flow of gas into the [REDACTED]
[REDACTED]
- 4.58 Filtering – station inlet filter to be replaced with higher capacity coalescing filter.
- 4.59 Gas Heater – two (2) off 50% gas heaters to be installed downstream of the new filters.
- 4.60 New Meter Run 3 – a new DN250 meter run with two ultrasonic meters and active monitor pressure regulators with remote operable shutdown valve.
- 4.61 Hot tap – a DN300x300 hot tap will connect the new Meter Run 3 directly to the DN300 outlet pipe.
- 4.62 New Control Hut – A new Control Hut will connect and control the newly installed equipment only, without impacting on current functionality at the existing control hut.
- 4.63 [REDACTED] **Power Station Dedicated Meter Station** – This is a new project to upgrade the [REDACTED] power meter station This is a new project a FEED study has not yet been finalised.
- 4.64 [REDACTED] **Outlet Station Construction** - The scope of this project is to perform a hot tap on to the DBNGP at approximately [REDACTED] (1.2km north of MLV 116) and just [REDACTED] and construct a new offtake meter station compound and custody transfer metering skid. The hot tap will be at located at co-ordinates N 6, 508, 278.391, E 400, 956.087. The facility will supply gas to the [REDACTED] Gas Pipeline.

- 4.65 The meter station will be fenced within a compound 20x16meters which is located within the DBNGP Corridor. The site is currently a grazing paddock. The temporary site office, crib room, ablutions, lay down area, site containers and workstation area will be located on the DBNGP corridor. The facility is accessible though a gravel road and is a Brownfields site. The area is prone to flooding in winter and hence the meter station will be built up and raised limestone driveways installed.
- 4.66 The initial civil works will consist of removing 200mm of top soil from the existing ground surface and building up the compound 600mm to prevent water flooding in the meter station area. To facilitate water removal from the site, a swale drain will be constructed from the southwest corner of the paddock, and then run up and east across the north of the meter station. The swale drain will drain into an existing culvert. Construction of the drain will involve the removal of 70mm of cover.
- 4.67 The Mechanical and Electrical construction activities will consist of the: installation of a DN350 hot tap valve for the off take on the DBNGP; fabrication and installation of pipe supports and structural steel frame to support skid piping and equipment; fabrication and installation of a new DN200 meter skid, comprising dual ultrasonic flow meters and associated instrumentation; fabrication and installation of piping from hot tap to meter skid including remote operable actuated ball valve; fabrication and installation of DN300 above ground discharge piping from the meter skid to station boundary, terminating at an insulating flange; installation of a new control hut, including completion of fit-out and installation of cabling from the control hut to the skid.
- 4.68 The site works are to commence on 20 April 2009 and be completed on 1 July 2009. During this period a site crew of up to 16 people may be present on site during peak periods. However, all personnel will be accommodated off site.
- 4.69 Following construction, the remaining permanent facilities will be the meter station, equipment hut, two driveways, two access gates and the swale drain. All site construction associated equipment will be removed.

5. CONFIDENTIALITY



Attachments

1. Project justification form for CS 2/2, 4/2 & 7/2 Replacement of Turbine Air Inlet Filters
2. Project justification form for Replacement of Stage 3A Turbine air Inlet Filters
3. Project justification form for Development of Design Basis of Air Compressors (CS 2, 4 & 7)
4. Project justification form for Intelligent Pigging
5. Project justification form for Electronic Noticeboards
6. Project justification form for ProMaster Express Automated Purchase Card System